

Claims

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1. Device for the evaporation of volatile substances, especially of aromatics and/or insecticides,

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with a housing (2) in which a receptacle arrangement (3; 6) is insertable, having at least two receiving chambers (4, 5; 7, 8), with one substance each to be evaporated being incorporated in said receiving chambers (4, 5; 7, 8) and with one wick (9) each being insertable into said receiving chambers (4, 5; 7, 8), said wick (9) protruding with one wick end (10) from the corresponding receiving chamber (4, 5; 7, 8) in said receptacle arrangement (3; 6) connected with said housing (2),

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with at least one heater arrangement (12; 14) incorporated in said housing (2), by means of which said wick ends (10) or, respectively, a near wick-end evaporation area (32) can be provided directly or indirectly with heat,

with at least one fan and/or ventilator equipment (17) for generating a well-targeted air stream (33), and

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with at least one control equipment (11) by means of which said heater arrangement (12; 14) can be controlled such that, optionally, at least one of the substances incorporated in said receiving chambers (4, 5; 7, 8) are evaporated and by means of which said fan and/or ventilator equipment (17) is controllable such that they can be switched on specifically at defined evaporation times.

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2. Device according to Claim 1, characterized in that said fan and/or ventilator equipment has at least one ventilator (17) which is resting on said housing (2) and is assigned to an evaporation area (32) and/or said wick ends (10), and

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that said at least one ventilator (17) generates a well-targeted ventilator air stream (33) which – in the way of a carrier gas – entrains the evaporated

substance (34) away from a near wick-end evaporation area (32) and conveys it to at least one air outlet area (35) formed on said housing (2).

3. Device according to Claim 2, characterized in that several ventilators (17) are provided and that to each evaporation area (32) and/or every wick end (10), a ventilator is assigned such that – in switched on condition – it applies a well-targeted ventilator air stream (33) to the correspondingly assigned evaporation area (32) and/or the correspondingly assigned wick end (10).
4. Device according to any one of the Claims 1 to 3, characterized in that said air stream (33) is directed such that it does not impinge upon said heater arrangement (12; 14), advantageously at a distance from said heater arrangement (12; 14), that – in said near wick-end evaporation area (32) – it impinges upon said evaporated substance (34) and/or a wick end area (36) of said wick end (10) protruding from said heater arrangement (12; 14).
5. Device according to any one of the Claims 2 to 4, characterized in that said at least one ventilator (17) or every ventilator (17) for itself is capsulated in said housing (2) such by means of a cover and/or housing wall (38) that said ventilator (17) or, respectively, said ventilators (17) is or are incorporated in a ventilator/housing partial area (37), and  
that said at least one ventilator/housing partial area (37) is flow-connected with said near wick-end evaporation area (32) via a ventilator air stream passage opening (39).
6. Device according to Claim 5, characterized in that said housing wall area – having said ventilator air stream passage opening (39) – is advantageously conically tapered (= nozzle area 40) to form a nozzle-type ventilator air stream passage opening (39).
7. Device according to any one of the Claims 1 to 6, characterized in that said heater arrangement (12) has one single heating block (13) which has a separately heatable heating block area (18, 19) for every wick (9) on the heating block (13).
8. Device according to Claim 7, characterized in that the individual heating block areas (18, 19) on said heating block (13) are thermally isolated from each other,

advantageously thermally isolated from each other by at least one air gap (20) between said individual heating block areas (18, 19).

- 5 9. Device according to Claim 7 or 8, characterized in that every heating block area (18, 19) has a wick recess (21, 22) into which said corresponding wick end (10) of said assigned wick (9) protrudes.
- 10 10. Device according to any one of Claims 7 to 9, characterized in that each heating block area (18, 19) has assigned at least one electrical heating element controllable by means of said control equipment (11), advantageously an electrical resistance element (23, 24).
- 15 11. Device according to any one of Claims 1 to 6, characterized in that said heater arrangement (14) is formed by individual heaters (15, 16) at a distance from each other which are correspondingly assigned to one wick end (10).
- 20 12. Device according to Claim 11, characterized in that every heater (15, 16) has a wick recess (25, 26) into which said corresponding wick end (10) of said assigned wick (9) protrudes.
13. Device according to Claim 11 or 12, characterized in that every heater (15, 16) has at least one electrical heating element, controllable by means of the control equipment (11), advantageously an electrical resistance element (27, 28).
- 25 14. Device according to any one of Claims 1 to 13, characterized in that said control equipment – especially having a timer equipment as a switchover device – has a programmable microprocessor which is coupled with the device, advantageously integrated into the housing.
- 30 15. Device according to any one of the Claims 1 to 13, characterized in that said control equipment (11) has a manual switch arrangement (29) on said housing (2) accessible from the outside, by means of which said heater arrangement (12; 14) and/or said fan - and/or ventilator - equipment (17) can be manually switched on, and/or that said control equipment (11) has a timer equipment
- 35 which can be coupled with said manual switch arrangement (29), advantageously to be coupled such that – upon actuation of a manual switch (30) assigned to said heater arrangement (12; 14) – said fan and/or ventilator equipment (17) can be switched on for a specific, definable time.

16. Device according to Claim 15, characterized in that said manual switch arrangement (29) has a separate manual heater switch (30) for switching on said heater arrangement (12; 14) and a separate manual fan/ventilation switch (31) for switching on said fan and/or ventilator equipment (17).
17. Device according to Claim 16, characterized in that said manual heater switch (30) is designed and controllable such that either no substance can be evaporated or merely one of the substances or several of the substances at the same time or with a shift in time.
18. Device according to Claim 16, characterized in that said manual switch arrangement has a manual switch by which – upon selecting said heater arrangement to be switched on – the fan and/or ventilator equipment can be controlled at the same time, advantageously for a specific, defined evaporation time.
19. Device according to any one of the Claims 1 to 18, characterized in that a wick end heater area (41) in said housing (2) is capsulated by means of at least one cover and/or housing wall (43) so that at least said heater arrangement (12; 14), advantageously said heater arrangement (12; 14) and said wick ends (10) of said wicks (9) are incorporated in a wick end /heater housing partial area (42), and
- that said wick end / heater housing partial area (42) – at least in the case of an encapsulation of heater arrangement (12; 14) and wick ends (10) – has at least a ventilation slot (44) for releasing the evaporated substance from said wick end / heater housing partial area (42).
20. Device according to any one of the Claims 17 to 19, characterized in that said ventilation slots (44) of said wick end/heater housing partial area (42) and/or said wick ends (10) passed through said housing wall (43) of said wick end / heater housing partial area (42), as well as said ventilator air stream passage opening (39) of said ventilator housing partial area (37) will debouch into a mixing chamber (45) of said housing (2) in which the ventilator air stream (33) impinges upon said evaporated substance (34) and entrains it to said at least one air outlet area (35) of said housing (2).

21. Device according to any one of the Claims 1 to 20, characterized in that said receptacle arrangement (3; 6) is formed by several separate receptacles (4, 5) which form said individual receiving chambers, or which is formed by a single receptacle which is multi-chambered (7, 8) in form.

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22. Device according to any one of the Claims 1 to 21, characterized in that said housing (2) is multi-part in design, and

10 that a connection plug (48) is integrated on said housing (2) or coupled with said device (1) via a cable.

15 23. Device, especially according to any one of the Claims 1 to 22, characterized in that said heater arrangement has at least one heating element (49) which is arranged such in said housing (2), advantageously in a capsulated ventilator housing partial area (37), that said air stream generated by the fan and/or the ventilator equipment (17) can be heated with it such that a hot air stream (33) impinges upon at least one wick end (10) protruding from a receptacle (4, 5) for a substance to the evaporated.

20 24. Device according to any one of the Claims 1 to 23, characterized in that two receiving chambers are provided, with an aromatic being incorporated in a first receiving chamber, and an insecticide being incorporated in a second receiving chamber; and

25 that said heater arrangement is controlled by means of a control equipment, advantageously having a timer equipment, so that said aromatic and said insecticide are periodically, alternately evaporated for a period of time advantageously definable by means of said timer equipment – said aromatic advantageously during the day and said insecticide during the night.

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25. Device according to any one of the Claims 1 to 23, characterized in that two receiving chambers are provided, with a first insecticide being incorporated in a first receiving chamber, and a second insecticide in a second receiving chamber, said second insecticide advantageously being different from the first insecticide, and

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that said heater arrangement is controllable by means of a control equipment advantageously having a timer equipment, such that said two insecticides are

periodically, alternately evaporated for a period of time advantageously definable by means of said timer equipment.

- 5 26. Device according to Claim 24 or 25, characterized in that said fan and/or ventilator equipment can be correspondingly switched on for a specific period of time, advantageously definable by means of said timer equipment, at the corresponding switchover time.

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